

**IN THE SPECIFICATION:****CROSS-RELATED REFERENCE SECTION**

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This application is a divisional of United States Patent Application  
Serial No. 09/045,224, filed March 20, 1998.

**IN THE CLAIMS:**

43. (New) An apparatus for screening pharmacological agents for agents which induce regression of cancer, said apparatus comprising:  
an evanescent sensing device;

at least one sensor having affixed to its surface molecules of a first type, which have affinity for molecules of a biological receptor, the surface molecule and receptor molecule combination having the effect that, *in vivo*, the binding affects the rate of transcription of gene products; and

a molecular tag wherein said molecular tag is bound to said sensor wherein the binding between molecules of the first type and molecules of biological receptor cause the tag to produce, an alteration in signal recorded by said evanescent sensing device, said tag also being bound to molecules of a second type, said molecules of second type having affinity for said receptor molecules.

44. (New) The apparatus according to claim 43, wherein said molecules of the second type are antibodies to said receptor.

45. (New) The apparatus according to claim 44, wherein said apparatus also includes a sample of tumor tissue.

46. (New) A method for screening pharmacological agents to determine agents which induce regression of a cancer by;

contacting extract from a tumor tissue biopsy with a molecular tag, thereby causing the tag to bind to receptor molecules present in the tumor tissue biopsy;

flowing the tag sample extract through a sensor according to claim 43 and recording the time course of signal observed by an evanescent sensing device;

introducing pharmacological agents to be assessed into the tag sample extract;

flowing said tag sample extract through the sensor again and recording the time course of signal observed by the evanescent sensing device; and

using the data to evaluate the impact of the pharmacological agent on the rate of transcription of gene products.

47. (New) An apparatus for screening pharmacological agents for agents which induce regression of cancer, said apparatus comprising:

an evanescent sensing device;

at least one sensor having affixed to its surface molecules of a first type, which have affinity for molecules of a biological receptor, the surface molecule and receptor molecule combination having the effect that, *in vivo*, the binding affects the rate of transcription of gene products; and

a molecular tag which produces an alteration in signal recorded by said evanescent sensing device upon the binding between molecules of the first type and molecules of biological receptor, said tag also being associated with molecules of the first type.

48. (New) The apparatus according to claim 44, wherein said apparatus also includes a sample of tumor tissue.

49. (New) A method for screening pharmacological agents to determine agents which induce regression of a cancer by;

flowing an extract of tumor tissue through a sensor according to claim 47 and recording the time course of signal observed by an evanescent sensing device;

introducing pharmacological agents to be assessed into the sample extract;

flowing said sample extract through the sensor again and recording the time course of signal observed by the evanescent sensing device; and

using the data to evaluate the impact of the pharmacological agent on the rate of transcription of gene products.